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#### Notes about water filters

These URLs are just to confirm that parasites including giardia can be filtered by anything that can do a good job of filtering bacteria based on the size of particles in the water.

An absolute size specification is better than a claim of average pore size.

Sawyer claims absolute 0.1 micron size filtration.

The biggest drawback to hollow fiber filters is not knowing they have been frozen with any amount of water left inside. My safeguard for that situation is a second, new from the factory, dry filter.

[https://www.cdc.gov/healthywater/drinking/home-water-treatment/water-filters.html?](https://www.cdc.gov/healthywater/drinking/home-water-treatment/water-filters.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fparasites%2Fcrypto%2Fgen_inf%2Ffilters.html)

[CDC\\_AA\\_refVal=https%3A%2F%2Fwww.cdc.gov%2Fparasites%2Fcrypto%2Fgen\\_inf%2Ffilters.html](https://www.cdc.gov/healthywater/drinking/home-water-treatment/water-filters.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fparasites%2Fcrypto%2Fgen_inf%2Ffilters.html)

[https://www.cdc.gov/healthywater/drinking/home-water-treatment/household\\_water\\_treatment.html#:~:text=Reverse%20osmosis%20Systems%20have%20a,coli\)%3B](https://www.cdc.gov/healthywater/drinking/home-water-treatment/household_water_treatment.html#:~:text=Reverse%20osmosis%20Systems%20have%20a,coli)%3B)

A microfiltration filter has a pore size of approximately 0.1 micron (pore size ranges vary by filter from 0.05 micron to 5 micron);  
Microfiltration has a very high effectiveness in removing protozoa (for example, Cryptosporidium, Giardia);  
Microfiltration has a moderate effectiveness in removing bacteria (for example, Campylobacter, Salmonella, Shigella, E. coli);  
Microfiltration is not effective in removing viruses (for example, Enteric, Hepatitis A, Norovirus, Rotavirus);  
Microfiltration is not effective in removing chemicals.

<https://www.sawyer.com/product-categories/water-filtration>

#### A lighter sleeping pad

Depending on which model Big Agnes pad you have, you might be able to save some weight with a somewhat lower R value pad that is warm enough for summer. The Therm-a-Rest NeoAir XLite NXT is 13.6 oz, with an R value of 4.5, which should be warm enough for summer. Although I prefer a 25" wide pad, and I sleep on my side due to OSA, I also use 20" pads sometimes, successfully. I use Therm-a-Rest NeoAir XTherm NXT pads all year, down to at least zero F, and there is less than 3 oz difference with the XLite.

<https://www.outdoorgearlab.com/topics/camping-and-hiking/best-sleeping-pad>

